Class # 6 General Science

Unit #1 Cellular Organization

1) Cells were first discovered by Robert Hooke in 1665 using his microscope on cork.

2) Squamous epithelial cells form the outer epithelial layer of the mouth.

3) Ribosomes are the factories of protein.

4) Chlorophyll is a cell organelle which contains green pigments called chlorophyll.

5) Vacuoles store different substances like water & salts.

6) Plants cells have a large central vacuole and animal cells have many dispersed small vacuoles.

7) Muscle cells are long, thin groups of bundles with many mitochondria.

8) Epithelial cells are used for protection, coverage, secretion, excretion, absorption and filteration. These are lightly packed sheets of cell present on the body surface and inner cavities.

9) Animal tissues are broadly classified into four groups: epithelial tissue, connective tissue, mascular tissue, nervous tissue.

10) Epithelial tissue is found in lining of tubes and organs. and body surface.

11) Connective tissues are found in bone, blood, cartilage, fats, loose connective tissue etc.

12) Plant tissues are of types: Epidermal tissues, photosynthetic tissues, supporting tissues, Vascular tissues.

13) Epidermal tissue is found on surface of leaves, stem and roots.

14) Supporting tissues is found in stem and roots.

15) Epithelial tissue, muscular tissue, blood tissue and nerve tissue join to form Stomach.

16) Oesophagus, liver, stomach, small intestine, large intestine form the digestive system.

17) Kidney, Liver, and bladder make excretory system.

18) Liver is a part of both digestive and excretory system.

19) In plants, protection is done by epidermal tissue, in animals, it is done by epithelial tissue.

Unit#2 Reproduction in Plants

1) All parts of the plant can be divided into two parts: reproductive parts and vegetative parts.

2) Reproductive part in plants includes only flower.

3) All other parts are vegetative parts.

4) All flowering plants are grown from seeds.

5) Male gametes are inside pollen grain which is part of the Stamen of Flower.

6) Female gametes are present in ovule which is part of carpel.

7) Sexual reproduction in plants include these steps: gamete formation, pollination, fertilization, seed formation and seed dispersal.

8) Growing of plant from any vegetative part is called asexual reproduction. It is also called vegetative propagation.

9) Clones are genetically identical organisms.

* 10) Vegetative propagation produces natural clones.

11) Variety comes by gamete fusion in sexual Reproduction.

12) Vegetative propagation can be classified into two types: natural and artificial.

13) Natural propagation includes budding, bulbs, tuber and runners.

14) A bud is a small swelling that can grow into new branches, leaves or flowers.

15) In vegetative propogation, roots, shoots, and new plants emerge from buds.

16) Air plant is also known as "Zakhme Hayat". It has buds at margin of its leaves which can develop into new plant

17) A bulb is a type of underground stem with thick, fleshy leaves that store food. It also produces buds. Examples are onion.

18) Tuber is a swollen underground stem.

19) Runners are plant stems that run along the ground. eg: Strawberry plant.

20) Example of tuber is potato.

21) Common types of artificial vegetative propagation are: cutting, layering, grafting.

22) Cutting includes the cutting of stem, root, or leaves which is grown into a new plant.

23) Growing stem of rose is an example of cutting.

24) When a branch of shrub touches the ground, develops roots, and produces a new plant, this is called layering. It involves bending of a branch, removing a ring of bark and covering it in soil.

25) Grafting is a technique of combining two plants.

26) It involves roots and bottom stem of one plant (called rootstock) and attaching it to shoot (scion of another plant.

27) Goafting is done in many fruit trees.

28) Tulips, lilies and onions are examples of bulbs.

29) Potatoes and onions have underground stems.

30) Potato tubers have depression or eyes which have buds to produce new plants.

31) In the formation of Forty Fruit Tree, it took 10 years.

Unit #3 Balanced Diet

1) Rice, bread, grains and fruits are rich in Carbohydrate.

2) Carbohydrates are called fuel for the body.

3) Deficiency of carbohydrates leads to headache, fatigue, weakness and growth stops.

4) Chicken, lentils, fish, meat, eggs, nuts, beans are major sources of protein.

5) Proteins make body cells and muscles.

6) Proteins also make tissues, enzymes and harmones.

7) Protein deficiency causes Kwashiorkor, Marasmus, slow growth, swelling, fatty liver, skin damage, discolouration of hair.

8) Sources of 'animal protein' are: meat, fish, poultry, eggs and diary, Sources of 'plants protein' are: vegetables, whole grains, seeds, and nuts.

9) Brain is only carbohydrate-dependent organ in body.

10) Sources of fats are: seeds, nuts, eggs, dairy products, olive oil.

11) Fats are the richest source of energy.

12) Fats are important for growth of young children.

13) Fats help to improve brain function.

14) Vitamin A improves vision and enhances immunity.

15) Deficiency of Vitamin A causes loss of vision.

16) Sources of Vit A are: vegetables, fruits, eggyolk, & butter.

17) Vitamin C is good for skin and helps to heal.

18) Deficiency of Vit C causes 'Scurvy' a disease causing gums to bleed and wounds take longer time to heal.

19) Sources of Vit C are: citrus fruits and vegetables. e.g: orange, mango, lemon, cabbage, potato.

20) Vitamin D helps to make bones and teeth strong and in absorption of calcium.

21) Deficiency of vit D causes Rickets in which bones become weak and bent.

22) Sources of Vit D are: diary products, eggs, liver, fish oil, and sunlight.

23) Calcium makes bones, enamel of teeth, helps in clotting of blood and controls muscle contraction.

24) Deficiency of calcium causes poor skeletal growth, osteoporosis, bones and teeth become weak.

25) Sources of calcium are: diary products and green vegetables like spinach and eggs.

26) Iron helps in formation of haemoglobin.

27) Deficiency of iron causes anemia, weakness, fatigue, pale complexion.

28) Sources of iron are: liver, meat, fish, eggs, nuts, whole cereals and green vegetables.

29) Fiber keeps our intestine healthy and working.

30) Deficiency causes constipation, bloating, diabetes and high cholesterol level.

31) Add ethanol and water to crushed food. Cloudy mixture means fats are present.

32) Cucumber & watermelon are waterrich.

33) There are six essential nutrients for body.

34) Three nutrients carbohydrates, fats and proteins are called macronutrients. Other three nutrients water, minerals and vitamins are micronutrients.

35) Minerals and vitamins are in traces in our daily percentage of calories.

35) Carbohydrates are 45-55%, proteins are 20-35%, fats are 20-35% in percentage of daily calories.

36) Milk is a good source of calcium & VitD.

37) Beans and lentils contains carbohydrates & protein.

38) Not getting sleep causes hunger for fats and as a result obesity follows.

39) A 6-13 yrs child should get 9-11 hours sleep daily.

40) One third of the people on Earth are malnourished.

41) About 2 billion people are overweight.

42) 821 million people are going hungry.

43) Carrots are source of Vit A.

44) Energy is stored in nutrients in form of calorie.

45) Protein is a building food.

46) 1 egg contains 6 grams of protein.

47) 1/2 cup of peas contains 4 grams of protein.

48) 1/2 cup of Spinach contains 3 grms of protein.

49) 1 cup of yoghur contains 11 grams of protein.

50) 1 oz of walnut contains 4 grams & 1 oz of pumpkinseeds

contains 9 grams of proteins

Unit #4 Human Digestive System

1) Digestion is of two types: physical or mechanical digestion involves chewing, crushing, rolling and mixing of large food molecules by teeth & tongue.
2) Starch is disolved chemically by enzymes of saliva.
3) Food pipe is also known as Oesophagus.
4) Churning is the mechanical digestion by smooth muscles in the wall of stomach.
5) Stomach glands produce gastric juice. which has enzymes and acid for protein digestion.
6) After several hours in stomach, food becomes soupy mixture.
7) Liver produce bile to digest fats and gall bladder stores it.
8) Chemical digestion completes in Small intestine.
9) Enzymes produced in pancreas flow into small intestine and intestinal glands digest all types of food nutrients.
10) Nutrients are absorbed into blood through villi present in the small intestine.
11) Large intestine absorbs wates from the undigested food. No digestion occurs here.

12) Rectum stores the solid waste then releases through anus.

13) Chemical digestion is done through enzymes.

14) A child has 20 milk teeth which fall between the age of 6 & 12 to make room for 32 adult teeth. called permanent teeth.

15) Friendly bacteria in large intestine make Vit K.

16) 30% of the faeces consists of bacteria.

17) Taking in of food is called ingestion. Passing of food molecules from digestive to circulatory tract is absorption. Taking in of food molecules by cells is absorption. Removal of undigested food is egestion.

18) Causes of vomiting may be food poisoning, infections, headache, motion sickness.

19) Diarrhoea is the watery, loose motions 3-4 times a day.

20) Infections, medicines, stress are causes of diarrhoea.

21) Constipation occurs when faeces become hard, dry & difficult to pass. Causes of constipation may be medicines, less water intake, less exercise, less fiber in diet.

22) Mouth & stomach are involved in both types of digestion.

23) Food takes 24 hours to pass from mouth to anus.

24) Digestive system/tract starts from mouth & ends at anus.

Unit #5 Matter as Particles

1) The continuous movement of particles in both gases and liquids is also called the 'Brownian motion' after Botanist, Robert Brown.

2) Robert Brown observed the movement of pollen grains in water under microscope in 1827.

3) The zigzag pattern supported Particle Theory of matter.

4) The phenomenon of particles moving from an area of high concentration to low concentration is called Diffusion.

5) The process in which solid is converted directly into gas is called Sublimation.

6) Solid carbon dioxide is called Dry ice. Which shows the behaviour of sublimation.

7) Particle Theory of matter suggests that:

- All matter is made up of tiny particles.
- These particles are always moving.
- Speed and arrangement of the particles vary with the state of matter (solids, liquid, gas)

8) According to Particle Theory of matter, every particle even in solids are moving/vibrating.

Unit # 6 Elements and Compounds

1) There are about 6 hundred billion trillion water molecules in one teaspoon of water.
2) In 1869, Russian scientist Dimitri Mandeleev started arranging elements in order of increasing atomic mass in the periodic table as They were discovered.
3) There are a total of 118 elemants discovered so far.
4) 99% of human body is made up of six elements. Oxygen is 65%, Carbon 18.5%, Hydrogen 9.5%, Nitrogen 3.2%, Calcium 1.5%, all other elements 2%.
5) Metals are ductile and malleable, non-metals are brittle. They break but do not bend.
6) Mercury is the only elemental metal that is liquid at room temperature.
7) Carbon is used in industries as fuel, plastics, paints, tools, lead pencil, diamond in jewellry industry.
8) Carbon is also used in drinking water treatment and pharmacy industries, Chemical and Smelting industry.
9) Hydrogen makes up about 75% of total mass of Universe.
10) Hydrogen is used in fertilizers, rocket fuels and processing industries.
11) During WWI, hydrogen balloons were utilized in balloon airships.

12) Hydrogen filled balloons are fitted with the equipment to study climate by meterologists in weather balloons, because hydrogen is light.

13) 78% of the Earth's atmosphere is nitrogen.

14) Nitrogen is odourless, colourless gas.

15) It is used in dyes, foods, fertilizers & explosives.

16) Aluminium is a lightweight silver-white metal.

17) It is naturally abundant in Earth's crust.

18) Aluminium is used in construction industry in high rise buildings, window frames and structural units.

19) It is also used in household and industrial appliances, parts of motor cars, aircraft, spacecraft.

20) Helium exists as individual atoms.

21) Some elements exist as elemental molecules.

22) H_2, N_2, O_2, F_2, Cl_2, Br_2, I_2 exist as diatomic molecules.

23) Ozone is triatomic molecule (O_3).

24) Sulfur exist as 8-atomic molecule (S_8).

25) Compounds are pure substances with more than two atoms of different elements chemically combined in a fixed ratio. by mass.

26) H_2O is known as dihydrogen monoxide.

27) NaCl naturally occurs as Rock salt or Sea salt.

28) NaCl is used in food preservation.

29) Simplest sugar is sucrose represented by the formula

30) Sugar we use at home comes from Sugar cane

31) All elements of human body by percentage.
Oxygen (65%) Carbon (18.5%) Hydrogen (9.5%) Nitrogen (3.2%), Calcium (1.5%) Phosphorus (1%) Pottasium (0.4%) Sulphur (0.3%) Sodium (0.2%) Chlorine (0.2%) Magnesium (0.1%) Copper (less than 1%)

Unit#7 Mixtures

1) A mixture consists of two or more substances that are not chemically combined together.

2) A mixture may consist of an element, a compound or both - with all their properties retained.

3) The components in a mixture may or may not be in a fixed proportion & can vary in quantity.

4) A homogenous mixture has a uniform composition throughout & we cannot see separate particles.

5) Air is a homogenous mixture.

6) Homogenous mixtures are also called solutions.

7) A heterogenous mixture does not have uniform composition throughout and materials can be seen.

8) Sulfur and iron fillings, oil and water are the examples of heterogenous mixtures.

9) Mineral water is a mixture.

10) When the mixture of iron and sulfur is heated, iron sulfide is formed.

11) Elements, compounds and mixtures have specific melting & boiling points depending on their composition.

12) In mixture, no new substances are formed.

13) Mixtures do not have fixed m.p & b.p.

14) A pure substance is that form of matter which has the same composition & properties throughout.

15) Elements & compounds are pure substances.

16) Salt water, mouthwash & alloys are homogenous mixtures.

17) Alloys are mixtures of one metal with another element metal or non-metal.

18) Cast iron is an alloy of iron & carbon.

19) The main metal is in large propotion called main or base metal. The other element metal or non-metal present in small quantity is alloying agent.

20) Pure metals are soft in nature.

21) Alloys are stronger, harder and more resistant to corrosion than pure metals.

22) Conductivity of alloys is lower than that of pure metals.

23) Brass is an alloy of Copper & Zinc.

24) Milk is a mixture of water with minerals, proteins, fats.

25) Black coffee is a homogenous mixture of coffee beans & water.

26) Milk coffee is a mixture of milk and black coffee.

27) Vinegar is a homogenous mixture of acetic acid & water.

28) LPG is a mixture of ~~carb~~ hydrocarbons.

29) Stainless steel is a mixture of iron & carbon. It is used to make sinks, utencils & medical instruments.

30) Nitrogen is colourless and odourless and does not combine with other substances.

31) Concentration of oxygen is low on high mountains.

32) Following are methods to separate the mixture into its components:

- hand sorting
- Sieving
- Filteration
- Evaporation
- Distillation
- Chromatography

33) Hand sorting involves the separation of differend substances by hand.

34) Sieving is used for separating mixtures of particles of different sizes.

35) A mixture of sand & pebbles is separated by sieving.

36) Sieve is used to separate large quantities of mixtures.

37) Winnowing is a method used to separate a mixture of two solids of different sizes. with the help of wind.

38) Winnowing is used to separate chaff from grain.

39) Filtration is a method of separating an insoluble solid from a liquid using a filter paper.

40) Filteration is used to separate mud/sand from water.

41) Particles left on filter paper is called residue and the liquid passing thoough is called filtrate.

42) Salt is soluble in water so filtration cannot be used.

43) To separate soluble solid from a solution, evaporation is used.

44) Decantation is a process to separate the mixtures by removing the liquid layer. First, solid is allowed to settle down at the bottom, liquid is removed.

45) Water lost in evaporation can be condesed by cooling.

46) Distillation is the process of evaporation and condensation to separate a liquid from a solution. based on different boiling point.

47) Clean water achieved in distillation is known as distillate.

48) Ink is a mixture of different dyes which are soluble in water and alcohol.

49) With solvents, these dyes move up at different rates on a filter paper separating different colours. This is called chromatography.

50) The paper obtained in the process is called chromatograph.

51) A homogenous mixture of solute and solvent is called a solution.

2) Suspension is another type of mixture in which solid particles do not dissolve. They are suspended in the liquid and after some time they settle down.

53) Water and chalk is an example of suspension.

54) Solubility is the amount of solute dissolved in specific amount of solvent at particular temperature.

55) A dilute solution has less amount of solute.

56) A concentrated solution has more amount of solute.

57) The process used to purify oil is called distillation

58) The maximum amount of solute that can be dissolved in a solvent at specific temperature is called solubility

59) Components of a mixture are separated by the physical methods.

60) Combination of gases in air is an example of no chemical combinations.

Unit # 8 Energy

1) Energy is a physical quantity. Its unit is Joule.
2) Energy can have many forms but They are categorized into two categories: P.E & K.E.
3) Energy of a body due to its motion is called kinetic energy. It can be in form of heat, light, sound, electricity or motion of an object.
4) Energy possessed by a body due to its position is called Potential energy. It can be in form of stored energy, gravitational P.E or elastic P.E. Nuclear & chemical energy are also forms of potential energy
5) Hitting a nail into a wood is an example of conversion of K.E. to P.E.
6) When a ball in thrown downwards. Energy changes as: G.PE → K.E → E.P.E → K.E → G.PE.
7) In automobiles only 10% of the chemical energy of gasoline moves the car. Remaining 90% is lost to the environment in different forms.
8) Chemical energy is stored in bonds of a compound and released as heat mostly during chemical reaction.
9) Nuclear energy is stored in the nucleus of atoms.
10) This nuclear energy is released during fusion or

fission reactions.

11) Elastic energy is stored in coiled spring and stretched elastic bands.

12) Mechanical energy of an object is the sum of K.E and P.E.

13) Electric energy is a kind of kinetic energy caused by moving electric charge.

14) Sound energy travels as waves; light energy travels in form of waves as well as particles.

15) Thermal energy is produced when an increase in temperature causes particles to move faster.

16) A car engine changes chemical energy to mechanical energy, heat energy and sound energy.

17) A nuclear reaction changes nuclear energy to light energy, heat energy and sound energy.

18) Hammering a nail changes K.E into deformation, sound and heat energy.

19) Matter that stores energy is called fuel.

20) In today's society, humans consume as much as 110 times more energy per person as early humans.

21) Most of energy we use today comes from fossil fuels.

22) Renewable sources of energy are constantly replenished.

23) Sunlight can produce electrical energy using a photovoltaic cell.

24) Biodiesel and biogas plant are examples of Biomass Energy. It can be fuel to produce heat & electricity.

25) In geothermal Energy, we use Earth heat and convert it into electricity.

26) Non-renewable sources take millions of years to develop.

27) Fossil fuels and nuclear energy are examples of non-renewable sources.

28) Producing electricity from fossil fuels also produces CO_2 gas. Burning fossil fuels cause air pollution, global warming, smog and acid rain.

29) According to Global Energy Review 2021, IE, Paris: Coal produces 35% of energy, petroleum and the natural gas, 36%, and Renewable sources - 29%.

30) Out of renewable sources: hydropower is 22%, Biofuel is 11%, wind is 44%, & solar is 23%.

31) Non-renewable sources are also called conventional, and renewable sources as non-conventional sources.

32) Heating with wood is example of biomass as source of energy.

33) In battery-operated flashlight, conversion of energy is: chemical E → Electrical E → Light E.

U#9 Electricity

1) When you use a plastic comb in your hair, it is negatively charged while charges on hair is positive.
2) Rubbing a balloon with hair creates a positive charge on balloon & negative charges on hair.
3) Electrostatic induction is a method to create or generate static electricity in a material by bringing an electrically charged object near it.
4) Pepper is lighter than salt so it jumps on to and stick to a charged plastic spoon.
5) There are two types of electricity.
6) When electricity stays in one place, it is called static electricity e.g: electrostatic induction.
7) If electricity is caused by flow of electrons, it is called current electricity.
8) Glass, paper, rubber, Ceramic, plastic, fabric, wood, wool and cork are insulators.
9) Silver, gold, copper, steel, sea water are conductors.
10) The direction of flow of electrons is from the negative to positive terminal of the cell.
11) The conventional direction of current is taken from positive to negative terminal of the cell.

12) An ammeter is used to measure flow of current.

13) A single unit device that converts chemical energy into electrical energy is cell.

14) A group of cells is battery.

15) Battery or cell pushes the charges through circuit.

16) An electric motor changes El. E into Mech. E.

17) In electric symbols, straight line means wire.

18) Circuits are of two types: series & parallel.

19) In series, there is one path for charge flow.

20) In series, if there is an interruption, current cannot flow causing the coming devices in line to stop working.

21) If more bulbs are arranged in series, they became dim.

22) Refrigerator and freezer use series circuit.

23) In parallel, there are more than one path for charge flow.

24) In paralld, if there is an interruption, charge can still flow and any device linked can still work.

22) If more bulbs are arranged in ~~series~~ parallel, they do not become dim.

23) Electric wiring to power point in every house uses paralld circuits.

24) Computer hardware uses paralld circuit.

25) Electricity can be stored in a cell.

26) Current only flows in closed circuit.

Unit H10 Magnetism

1) Magnetic field lines can be displayed by using iron fillings or magnetic compass.
2) Magnetic field lines point from North to South outside the magnet.
3) Magnetic lines of force always form closed loops.
4) Magnetic lines point from South to North inside the magnet.
5) Magnetic field lines never cross each other
6) The North Magnetic Pole of Earth towards its Geographic South direction and vice versa.
7) When a hanging magnet comes to rest, it is in a specific North-South direction.
8) When current is passed through a straight wire, a circular magnetic field lines are produced.
9) Magnetic fields lines around the wire are concentric circles.
10) If direction of current changes, so does magnetic field.
11) There are three types of magnet.
12) A permanent magnet retains its magnetic properties in the absence of any other magnet or current.
13) Permanent magnets are made from alloys of iron, nickel, cobalt.
14) Temporary magnets show magnetic properties only when they are in strong magnetic field of another another magnet or current.

15) Temporary magnets are made of soft iron.

16) Electromagnet is a magnet in which magnetic properties are produced by flow of current and disappear when current is turned off.

17) Example of electromagnet is coil around steel nail.

18) Electromagnets behave as temporary magnet.

19) Electromagnetism serves as basic principle of working in
- motors & generators
- electric bells
- maglev train
- lifting magnets
- headphones
- loud speakers
- musical instruments
- transformers
- mobile phones

20) Three most commonly used methods of magnetization are: Single Touch, Double Touch, Electrical method.

21) When any pole of one magnet is rubbed vertically against an iron etc, it is Single Method of magnetization.

22) When opposite poles of two magnets are placed at centre of an iron etc and rubbed in opposite direction, this is called Double Touch Method of magnetization.

23) A bar of steel can be magnetized in electrical method.

24) There are three methods of demagnetization: heating, hammering and electrical method.

25) Magnetic field is strongest at poles, so if a magnet is brought near dust, particles stick near two ends.

26) Boiling does not affect magnetic properties.

27) Magnetic lines of force of a bar magnet do not intersect because at any given point in space, the magnetic field has a single direction and magnitude.

28) Steel is the most suitable material for making a permanent magnet.

Unit # 11 Technology in Everyday life

1) A bird makes piles of compost upto 12.7 cubic meters and 7000 kg to incubate many eggs.

2) Yogurt and cheese are fermented milk products used to preserve the nutrients in milk.

3) Yogurt and cheese can be made from the milk of cows, goats and buffaloes.

* 4) Fermentation is a chemical process in which microorganisms convert carbohydrates such as sugar and starch into alcohol.

5) In yeast fermentation, sugar is converted into alcohol.

6) In bacteria fermentation, carbohydrates are converted into lactic acid.

7) Term 'ferment' comes from Latin 'fervere', which means 'to boil'.

8) Fermentation was described by late 14th century ~~scientists~~. alchemists.

9) Fermentation became a subject of scientific investigation about the year 1600.

10) Whole milk is main ingredient in full fat yogurt.

11) Low fat milk is main ingredient in low fat yogurt.

12) Skimmed milk is main ingredient in nonfat ygurt.

13) The sugar in milk is lactose which can be fermented into lactic acid. This process produces the characteristics of curd.

14) Lemon juice lowers the pH, producing a sour flavour. It causes the proteins to denature and the mille to thicken.

15) Milk fat is 'curd', and liquid portion is 'whey'.

16) Coagulation is the process of transforming the liquid into a semisolid.

17) When making cheese, an enzyme called rennet is added either as a liquid or past to coagulate.

18) Fruits, vegetables peeling, egg shells are examples of organic fertilizers.

Unit #12 Solar System

1) As of June 2013, 900 planets have been identified in the universe.

2) Surface temperature of different planets is:

• Mercury (440°C) • Venus (460°C) • Earth (~15°C) • Mars (-50°C)

• Jupiter (-140°C) • Saturn (-170°C) • Uranus (-210°C) • Neptune (-220°C)

3) Days and years on each planet compared to Earth

Planet	Period of rotation	Period of revolution
Mercury	59 days	88 days
Venus	243 days	225 days
Earth	24 hours	365 days
Mars	25 hours	687 days
Jupiter	10 hours	12 years
Saturn	10 hours	29 years
Uranus	18 hours	84 years
Neptune	19 hours	165 years

4) Jupiter has a diameter of 88,695 miles or 142,800 kms, which is 11 times the diameter of Earth.

5) Jupiter's volume is over 1300 times the volume of Earth.

6) 18 Mercury planets can fit in one Earth.

7) Venus is the hottest and Neptune is the coldest planet.

10) There are 5 dwarf planets in our Solar system.

11) Dwarf planets are not moons and roughly round.

12) Five dwarf planets are: Pluto, Eris, Ceres, Haumea, Makemake.

13) The Solar System has 08 planets, 176 moons, 05 dwarf planets.

14) Asteroids are smaller than meteroids.

15) Asteroids revolve around the Sun and made up of rock or metal.

16) Asteroids are also known as minor planets or planetoids.

17) Asteroids are found between Mars and Jupiter in nearly flat ring system called Asteroid Belt.

18) Asteroids can be round or irregular.

*19) Meteorite is solid piece of debris from any spare object (comet, asteroid, meteroid) which originated in outer space and came to Earth surface.

20) Meteoroids are pieces of rocks or irons found in The Solar system.

21) Size of meteorids can range from a few mm to Thousands of kms.

22) When meteoroids enter Earth's atmosphere and burn up, they are called meteors. also known as falling or shooting stars.

13) Comets are bodies of ice, rock and dust that can be several miles in diameter and revolves around the Sun.

14) The tail of comet always points towards the Sun.

15) Halley's Comet is visible from Earth every 75-76 years.

16) Halley's Comet last appeared in 1986 and next it will appear in 2061.

17) Halley's Comet was first identified as a comet in 1758 by Edward Halley.

18) Halley Comet was the first one which marked our understanding of comets.

19) Ancient people thought comets brought floods & Earthquakes

20) Any object, moon, planet or manmade that moves around a larger object is called satellite.

21) Research satellites measure and study properties of the outer space e.g: Hubble Space Telescope.

22) Earth Observation Satellites map out resources.

23) Pluto was reclassified as dwarf planet in 2006.